REMARKS

Claims 1-43 are pending in the present application. Claims 1-43 have been examined and stand rejected. In the above amendments, claims 1, 17, 18, 21-24, 29, 30, 35, 36 and 43 have been amended. Therefore, after entry of the above amendments, claims 1-43 will be pending in this application. Applicant believes that the present application is now in condition for allowance, which prompt and favorable action is respectfully requested.

Rejection of Claims 1, 5-9, 11-18, 21-25, 29-32, 34-36 and 42-43 Under 35 U.S.C. §103(a)

Claims 1, 5-9, 11-18, 21-25, 29-32, 34-36 and 42-43 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Papadimitriou *et al* (U.S. Patent No. 6,385,458) in view of Hefner *et al* (U.S. 2004/0142702).

Papadimitriou discloses a method that implements a location service in a communication network. In Figure 2, a user requests the location of a terminal device in step 215. Steps 220, 225, and 230 may then be performed to obtain a priority level for the request. After determining the priority level, the request is sent to a GMLC in step 235. If the request is a highest priority request, such as an emergency number E-911, then the algorithm proceeds immediately from step 215 to step 235. (See column 5, lines 58-62.) The GMLC then sends a request for location information towards the LMUs servicing the terminal device. (See column 6, lines 23-28.) The LMUs estimate the location of the terminal device in step 245 and return the location estimate to the GMLC in step 250. The GMLC then sends the location estimate to the user in step 255. (See column 6, lines 50-55.)

Hefner discloses a method of determining location technology supported by a wireless communication network. In Figure 5, a mobile station (MS) requests its position from the network in block 515 and receives a response from the network in block 520. If the response includes a request for measurement information from the mobile station, then the mobile station determines and stores information regarding the network location technology supported by the network in block 535. (See paragraph [0040].) If the mobile station receives location information from the network in block 545, then the mobile station enters and stores information indicating that the network supports network-based location services in block 540. (See paragraph [0042].) After blocks 535 and 545, the mobile station may optimize its location technology to match the location technology supported by the network. (See paragraph [0042].)

Claim 1 of the present application, as amended, recites:

"A method of providing location services (LCS), comprising:

receiving a request for location information for a mobile station;

performing location determination via a first set of at least one network entity to obtain suitable location information for the mobile station responsive to the request for the location information when present location information for the mobile station is unavailable or unsuitable; and

performing location disclosure via a second set of at least one network entity to provide the suitable location information for the mobile station responsive to the request for the location information, and skipping the location determination when the present location information for the mobile station is available and suitable."

Applicant submits that claim 1 is patentable over Papadimitriou in view of Hefner for at least the following reasons.

First, the combination of Papadimitriou and Hefner does not disclose "performing location determination via a first set of at least one network entity ... and performing location disclosure via a second set of at least one network entity," as recited in claim 1. For example, location determination may be performed via SPDE 260 and location disclosure may be performed via LCS server 216, as shown in FIGS. 1A, 5B and 9A of the present application. In contrast, Papadimitriou discloses using the combination of GMLC and LMUs to perform both location determination and location disclosure.

Second, the combination of Papadimitriou and Hefner does not disclose "performing location disclosure ..., and skipping the location determination when the present location information for the mobile station is available and suitable," as recited in claim 1. Papadimitriou suggests performing steps 215 through 255 of algorithm 200 in Figure 2 for each request for location information. Algorithm 200 includes both (i) location determination to obtain a location estimate in step 245 and (ii) location disclosure to provide the location estimate to the user in step 255. Papadimitriou discloses skipping only steps 220 to 230, which determine a priority level for the request, for an emergency request. In contrast, claim 1 recites skipping the location determination and performing location disclosure to provide location information when such information is available and suitable. Suitability may be determined, e.g., by whether the location information is stale or cannot meet Position Quality of Service (PQoS) requirements, as disclosed in paragraphs [1009] and

[1116] of the present application. This feature of skipping location determination when not needed may allow for a faster response (which may be especially beneficial for emergency requests) and may also conserve system resources.

In summary, claim 1 recites performing location determination when present location information for the mobile station is unavailable or unsuitable and skipping location determination when the present location information for the mobile station is available and suitable. Papadimitriou and Hefner suggest performing <u>both</u> location determination and location disclosure for each request for location information.

The rejection states that "one skilled in the art would immediately envision that the request is a <u>request for location update</u> which would be that previous location information of the mobile station is no longer valid, i.e., undesirable, and there is a need for an updated location information, i.e., desired location information." This statement may not be true in many instances. For example, an application may request the location of a mobile station and may not know whether location information is available or whether it is suitable. Both location determination and location disclosure may then be performed for each location request, as suggested by Papadimitriou and Hefner and also discussed in paragraph [1003] of the present application, in order to ensure that suitable location information is obtained and provided to the application. Claim 1 improves efficiency by performing location determination when needed and skipping location determination when suitable location information is already available. This is not disclosed by Papadimitriou or Hefner.

The rejection states that "Hefner discloses a method wherein a mobile station transmits a location request, or a location update request, to the network, and the network responds with a communication specifying mobile wireless communication device <u>location technology</u> support information." Hefner discloses sending a request for the mobile station position in block 515 and, in response to the request, performing location determination based on a location technology supported by the network to determine the mobile station position. Hefner suggests performing location determination for each request. Hefner does not disclose skipping location determination if suitable location information is available. Hefner focuses on <u>location technology</u> supported by the network instead of <u>location information</u> for the mobile station. Hefner discloses the mobile station determining the location technology supported by the network in blocks 535 and 550 and optimizing its

location technology to match the location technology supported by the network. (See paragraph [0042].) Hefner arguably has little relevance with regard to claim 1.

For at least the above reasons, Applicant submits that claim 1 is patentable over Papadimitriou in view of Hefner.

Claims 5-9 and 11-17 are dependent on claim 1 and are patentable over Papadimitriou in view of Hefner for at least the reasons noted for base claim 1.

Independent claims 18, 22-24, 29, 30, 35, 36 and 43 have each been amended to recite features similar to the features noted above for claim 1. Claim 21 is dependent on claim 18, claim 25 is dependent on claim 24, claims 31, 32 and 34 are dependent on claim 30, and claim 42 is dependent on claim 36. These claims are patentable over Papadimitriou in view of Hefner for reasons similar to those noted for claim 1.

Accordingly, the §103(a) rejection of claims 1, 5-9, 11-18, 21-25, 29-32, 34-36 and 42-43 should be withdrawn.

Rejection of Claims 2-4, 19, 20, 26, 27 and 37 Under 35 U.S.C. §103(a)

Claims 2-4, 19, 20, 26, 27 and 37 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Papadimitriou and Hefner and further in view of Horn *et al* (U.S. Patent No. 6,064,741).

Claims 10 and 41 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Papadimitriou and Hefner and further in view of McDonnell *et al* (U.S. 2002/0004399).

Claims 28 and 33 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Papadimitriou and Hefner and further in view of Deloach *et al* (U.S. 2003/0125044).

Claims 38-40 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Papadimitriou and Hefner and further in view of Haverinen *et al* (U.S. 2003/0119481).

Claims 2-4 and 10 are dependent on claim 1, claims 19 and 20 are dependent on claim 18, claims 26-28 are dependent on claim 24, claim 33 is dependent on claim 30, and claims 37-41 are dependent on claim 36. The combination of Papadimitriou and Hefner does not disclose all of the elements of base claims 1, 18, 24, 30 and 36, as discussed above. The combination of Papadimitriou and Hefner is thus an insufficient basis for the §103(a) rejection of dependent claims 2-4, 10, 19, 20, 26-28, 33 and 37-41.

Accordingly, the §103(a) rejection of claims 2-4, 10, 19, 20, 26-28, 33 and 37-41 should be withdrawn.

CONCLUSION

In light of the amendments contained herein, Applicant submits that the application is in condition for allowance, for which early action is requested.

Please charge any fees or overpayments that may be due with this response to Deposit Account No. 17-0026.

Respectfully submitted,

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